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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,568	02/05/2002	J.C. Tai	330-244	1950

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NIXON & VANDERHYE, P.C.  
8th Floor  
1100 North Glebe Road  
Arlington, VA 22201-4714

EXAMINER

SALVATORE, LYNDIA

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/062,568	<b>Applicant(s)</b> TAI ET AL.	
	<b>Examiner</b> Lynda M Salvatore	<b>Art Unit</b> 1771	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 February 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 6-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \*   c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-5,13 and 14 drawn to an electret staple fiber comprising non-woven article, classified in class 442, subclass 414.
  - II. Claims 6-12 drawn to process for producing an electret non-woven fabric, classified in class 57, subclass various

2. The inventions are distinct, each from the other because:

Inventions Group II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the process of binding staple fibers and heat treating to form a coherent web may be employed to provide a variety of non-woven webs other than electret non-woven webs.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Arthur Crawford a provisional election was made with traverse to prosecute the invention of Group I, claims 1-5,13 and 14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6-12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. Applicant is advised that the reply to this requirement to complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

#### *Claim Objections*

7. Claim 13 is objected to because of the following informalities: Claim 13 depends from non-elected claim 6. Appropriate correction is required.

#### *Claim Rejections - 35 USC § 112*

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 1 is indefinite because it is unclear to the Examiner which physical state of the fiber the Applicant is claiming. Stated differently, it is unclear if the Applicant is claiming a staple fiber having oil adhering thereto before the "decrease" or after the decrease. The Examiner interprets this limitation to mean that the polyolefin staple fibers comprises adhering oil, wherein the amount of oil applied or adhered thereto decreases or is reduced after a heat treatment, but

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the Applicant has not positively set forth if this is what is actually meant to be claimed. Rather, the Applicant merely recites the characterizations of the fiber by an equation for which upon said heat treatment, the amount of adhering oil present decreases to X amount. This is not considered a positive limitation, but rather a recitation that the staple fiber is capable of having X amount of adhering oil present after said heat treatment.

***Claim Rejections - 35 USC § 102/103***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-4, 13 and 14 are rejected under 35 U.S.C. 102(b) or in the alternative, under 35 U.S.C. 103(a) as obvious over Dahringer et al., by US 6,235,663.

The patent issued to Dahringer et al., teaches fibers and textile structures made from fibers comprising a polyolefin fiber forming polymer which are coated with a solution, which decomposes during thermal treatment to provide improved charge stability to the textile structure (Column 1, 5-12, and Column 2, 44-50). The amount of solution applied to the fiber ranges .02 to 1 weight percent (Column 3, 5-11) and is reduced with the application of heat to amount of

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less than 1 weight percent (Column 3, 50-55). Dahringer et al., specifically teaches the formation of staple fibers with lengths from .2 to 200mm, and further teaches that electret fibers can be also multi-component fibers (Column 2, 37-46). The flat textile structures may take the form of non-woven materials and preferably function as filters (Column 5, 20-40). With regard to the composition of adhering oil limitations present in claim 2, Dahringer et al., teaches coating the staple fibers with a solution based on phosphoric acid esters and fatty acid polyethylene glycol esters and ethers (Column 8, 1-9). Suitable fatty acids include those derived from stearyl, oleyl and lauryl (Column 3, 30-35).

With regard to the molecular weight limitation present in claim 2, though Dahringer et al., does not explicitly state the molecular weight of the polyethylene glycol it is reasonable to presume that said property is inherent to the polyethylene glycol used by Dahringer et al. Support for said presumption is found in the use of like materials such as polyethylene glycol and the use of like processes such as the use of polyethylene glycol for the purpose of forming non-woven filter materials which can be electrostatically charged (i.e., an electret non-woven material). In other words, since the prior art meets the Applicant's oil adhering chemical, structural and final product limitations with the application of fatty acid polyethylene glycol ester to staple fibers and subsequently heat treating to produce a non-woven filter material capable of receiving electrostatic charge, it is the position of the Examiner that the molecular weight of the polyethylene glycol employed in the prior art invention is not only inherent, but must also be consistent with the polyethylene glycol of the instantly claimed invention. The burden of proof is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594



In addition, the molecular weight limitation would obviously have been present once the prior art product is provided. *In re Best*, 195 USPQ 433

***Claim Rejections - 35 USC § 103***

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dahringer et al., by US 6,235,663 as applied to claim 4 above.

Dahringer et al., teaches multi-component fibers and the use of various polyolefin materials, but fails to explicitly teach the sheath core arrangement with a polyethylene sheath as set forth in claim 5, however, the patent issued to Pike et al., teaches forming a non-woven filter material from conjugate fibers (Abstract). In example 1, Pike et al., specifically teaches using bi-component fibers having a polyethylene sheath and polypropylene core. Pike et al., teaches electrostatically treating the filter material to form an electret filter media (Column 10, 39-43). Suitable electrostatic treating methods include those that are applied during the fiber spinning stage (Column 8, 60-67). Pike et al., teaches that the non-woven structures are highly suited for use in various filter applications that require high filter efficiency, physical strength, abrasion resistance, and thermoformability (Column 3, 15-21).

Therefore, motivated to by the desire to produce a filter media having good filter efficiency, physical strength, abrasion resistance, and thermoformability, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the sheath/core combination of taught by Pike et al., in example 1 in the multi-component fiber taught by Dahringer et al.

***Conclusion***

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

September 28, 2003

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TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700